VS. FREEDOM FORCE



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V.S. FREEDOM FORCE

INTRODUCTION

V.S. FREEDOM FORCE USES AN EXPANDER P.C.B. TO ACCOMMODATE THE INCREASED CAPACITY OF THE PROGRAM MEMORY I.C. OF THIS KIT. THE EXPANDER P.C.B. PLUGS QUICKLY AND EASILY INTO THE CPU AND PPU SOCKETS OF THE MAIN NINTENDO P.C.B. AND CAN BE LEFT PERMANENTLY INSTALLED. THE ENTIRE FREEDOM FORCE PROGRAM IS ON THE EXPANDER P.C.B. AND NO OTHER PLUG-IN MEMORY I.C.'S ARE REQUIRED ON THE MAIN NINTENDO BOARD. THE EXPANDER WILL NOT INTERFERE WITH THE INSTALLATION OF FUTURE KITS. FREEDOM FORCE CAN BE INSTALLED IN A V.S. UNISYSTEM, OR IN CONJUNCTION WITH ANOTHER V.S. GAME IN A V.S. DUALSYSTEM

INSTALLATION PROCEDURE

TURN OFF GAME, UNPLUG, AND REMOVE MAIN NINTENDO P.C.B. PLACE ON A HARD FLAT SURFACE, UNPLUG THE PPU'S AT POSITIONS 2F AND 8F, AND THE CPU'S AT 2J AND 8J, SET THESE ASIDE. DEPENDING ON THE TYPE OF CABINET USED, YOU WILL NEED ONE OR BOTH OF THE PPU'S AND CPU'S LATER.

IMPORTANT!!!! BEFORE INSTALLING THE EXPANDER PCB, A NUMBER OF CAPACITORS MUST BE BENT DOWNWARDS TOWARD THE MAIN P.C.B. SO THEIR METAL TOPS DO NOT MAKE CONTACT WITH THE UNDERSIDE OF THE EXPANDER P.C.B. AND CAUSE A SHORT CIRCUIT. THESE CAPACITORS ARE C3, C11, C30 AND C47.

BEFORE MOUNTING THE EXPANDER P.C.B. ON THE MAIN P.C.B., MAKE SURE THE PPU'S AND CPU'S ON THE EXPANDER P.C.B. ARE REMOVED FROM THEIR SOCKETS, TO PREVENT DAMAGE DURING INSTALLATION. POSITION THE EXPANDER P.C.B. ON THE MAIN NINTENDO P.C.B. SO THE LONG PINS SIT LIGHTLY IN THE PPU AND CPU SOCKETS ON THE MAIN P.C.B. THE MOUNTING HOLES IN THE EXPANDER P.C.B. SHOULD LINE UP OVER THE HOLES IN THE CENTER OF THE MAIN NINTENDO P.C.B. BE SURE ALL PIN'S ON THE UNDER SIDE OF THE EXPANDER P.C.B. ARE LINED UP PROPERLY IN THE SOCKETS ON THE MAIN NINTENDO P.C.B. PUSH DOWN FIRMLY ON THE EMPTY PPU AND CPU SOCKETS OF THE EXPANDER P.C.B. SO THE PINS PLUG FIRMLY INTO THE SOCKETS. A CONSIDERABLE AMOUNT OF FORCE IS NEEDED TO SEAT THE BOARD PROPERLY. YOU MUST PUSH DOWN ON THIS BOARD SEVERAL TIMES BEFORE IT SEATS CORRECTLY.

V.S. UNISYSTEM WITH SINGLE MONITOR

REMOVE THE OLD GAME E-PROMS FROM THE MAIN NINTENDO P.C.B. SOCKETS AT 8A, 8B, 6A, 6B, 6C AND 6D. PUT THESE AND THE OLD GAME PPU AWAY FOR FUTURE RE-USE. TAKE THE V.S. FREEDOM FORCE PPU AND PLUG CAREFULLY INTO SOCKET 6A ON THE EXPANDER P.C.B. TAKE ONE OF THE CPU'S THAT YOU SET ASIDE EARLIER AND PLUG IT CAREFULLY INTO SOCKET 6B ON THE EXPANDER P.C.B. MAKE SURE NO I.C. PINS BEND AS YOU PLUG THESE I.C.'S IN AND BE CAREFUL NOT TO PLUG THEM IN BACKWARD'S. THE NOTCH ON ONE END OF EACH I.C. SHOULD LINE UP WITH THE NOTCH PRINTED UNDERNEATH EACH SOCKET ON THE EXPANDER P.C.B.

THE DIPSWITCHES ON THE EXPANDER P.C.B. ARE SET AT THE FACTORY AND SHOULD NOT NEED TO BE ADJUSTED. HOWEVER, CHECK TO MAKE SURE THAT THEY ARE NOT SET AT 1-4 OFF AND 5-8 ON. ON THE MAIN NINTENDO P.C.B., SET DIPSWITCH BANK SW2 TO THE FACTORY RECOMMENDED SETTING ON THE DIPSWITCH SETTINGS CHART (COINS PER PLAYER).

V.S. DUALSYSTEM WITH TWO MONITOR'S

V.S. FREEDOM FORCE CAN ONLY BE OPERATED ON THE RIGHT HALF OF THE V.S. DUAL SYSTEM CABINET. THE LEFT HALF CAN BE USED FOR MOST OTHER V.S. PAK'S FOLLOWING INSTALLATION INSTRUCTIONS SUPPLIED WITH ACCOMPANIED V.S. PAK.

INITIAL CHECKS BEFORE POWER UP

CHECK PINS ON UNDERSIDE OF EXPANDER P.C.B. TO SEE THAT EACH PIN IS PLUGGED INTO EACH CONTACT OF THE PPU AND CPU SOCKETS ON THE MAIN NINTENDO P.C.B.

CHECK ALL PLUG-IN I.C.'S TO BE SURE THEY ARE NOT PLUGGED IN BACKWARDS. THE NOTCH ON ONE END OF EACH I.C. SHOULD LINE UP WITH THE NOTCH PRINTED UNDER EACH SOCKET ON THE EXPANDER P.C.B. IN ADDITION, CHECK FOR BENT PINS. NOTE: PLUGGING IN AN E-PROM OR PPU BACKWARDS CAUSES DAMAGE AND VOIDS THE WARRANTY.

BE SURE DIPSWITCHES ARE ALL SET CORRECTLY, DO NOT CONFUSE DIPSWITCH SETTINGS FOR SW1 AND SW2 ON THE MAIN NINTENDO P.C.B. WITH SETTINGS FOR DIPSWITCHES ON EXPANDER P.C.B.

MAKE SURE THERE ARE NO OLD GAME E-PROMS IN THE SOCKETS ON THE MAIN NINTENDO P.C.B.

TROUBLESHOOTING AFTER POWER-UP

PROBLEM: GAME COMES UP WITH DARK BLUE SCREEN; NO PICTURE; AND NO SOUND.

POSSIBLE CAUSES: A.) EXPANDER P.C.B. NOT PLUGGED TIGHTLY INTO MAIN P.C.B.;

B.) ONE OR MORE PLUG-IN I.C.'S LOOSE IN SOCKET;

C.) I.C. PLUGGED IN BACKWORDS IN SOCKET;

D.) BENT PINS ON I.C.

PROBLEM: GAME COMES UP WITH WHITE SCREEN, NO PICTURE, NO SOUND.

POSSIBLE CAUSES: A.) ONE OR MORE PLUG-IN I.C.'S MISSING FROM EXPANDER P.C.B.;

B.) CABINET WIRING LOOSE;

C.) EXPANDER P.C.B. NOT PLUGGED IN TIGHTLY ENOUGH;

D.) OTHER CABINET PROBLEM SUCH AS POWER SUPPLY.

PROBLEM: PICTURE AND SOUND COME UP O.K. EXCEPT THAT CHARACTERS AND OVERALL GRAPHICS ARE WRONG.

POSSIBLE CAUSES: A.) DIPSWITCH'S ARE SET WRONG, EITHER ON MAIN NINTENDO P.C.B. OR ON EXPANDER P.C.B. DOUBLE CHECK DIPSWITCHES.

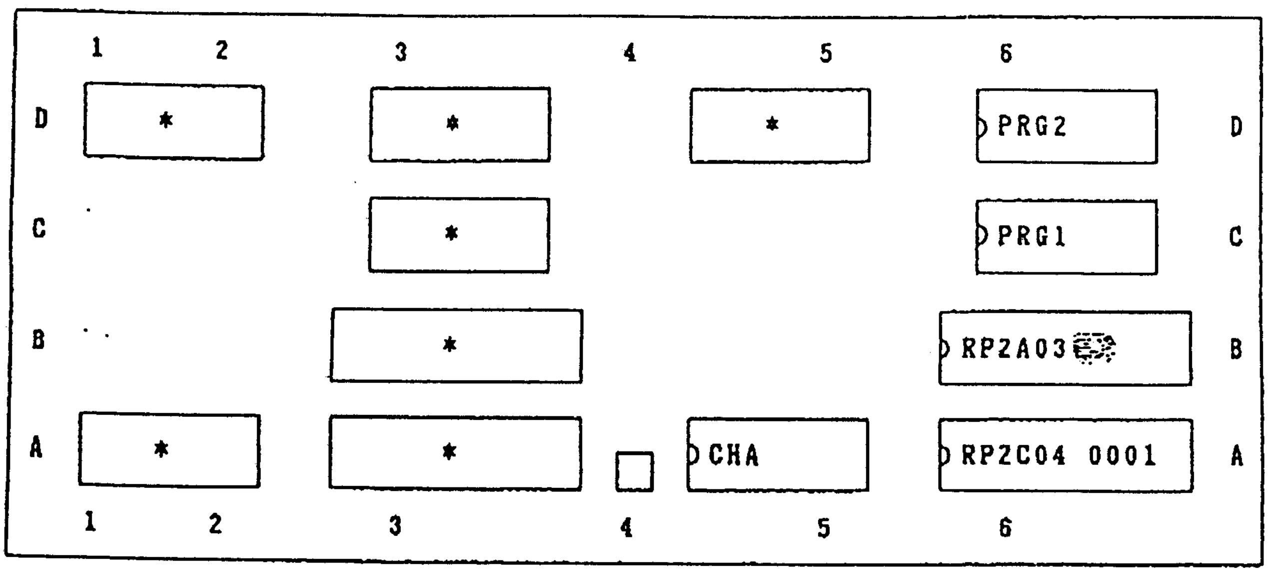
FINAL CHECKS

MAKE SURE COVER OF FCC CAGE IS INSTALLED CORRECTLY. CHECK GUN HARNESS AND MOUNTING, AND COIN SWITCHES FOR PROPER FUNCTIONING. ADJUST MONITOR COLORS AND BRIGHTNESS. ADJUST THE VOLUME TO SUIT THE LOCATION.

ADJUSTMENT ADAPTER BOARD (Freedom Force UNI version)

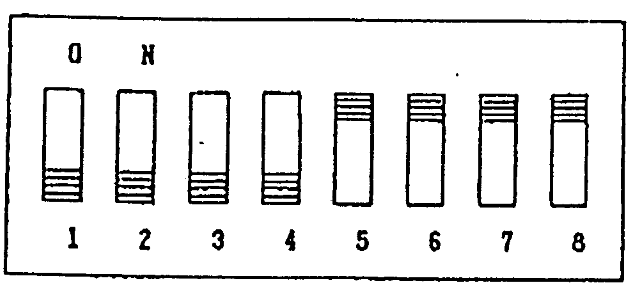
Program and Character ROM setting

PRG1	(PCB 6-C)	=	FFUNI1	(Ver2.1)
PRG2	(PCB 6-D)	=	FFUNI2	(Ver1.0)
CHA	(PCB 5-A)	=	FFCHA	(Ver2.1)
*		=	Not use	



Adapter board Hardware option switch setting

DIP SW (PCB 4-A) - on adapter board -



OFF OFF OFF OFF ON ON ON ON

ADJUSTING THE TV SCREEN

The TV screen must have its contrast and brightness adjusted properly for this game. If not, shots may not hit the targets.

Game Option Switch Setting

	SW2 1	2	3	4	5	6	7	8
Coin/Credit								
1 coin / 1 credit	OFF	OFF	OFF					
1 coin / 2 credit	OFF	OFF	ON					
1 coin / 3 credit	OFF	ON	OFF					
2 coin / 1 credit	OFF	ON	ON					
3 coin / 1 credit	ON	OFF	OFF					
4 coin / 1 credit	ON	OFF	ON					
5 coin / 1 credit	ON	ON	OFF					
Free Play	ON	ON	ON					
Health Awarded at								
2,6 (multiplied by 10000)				OFF	OFF			
2,6,12,18,24,30 (multiplied by 10000)				ON	OFF			
1,5 (multiplied by 10000)				OFF	ON			
1,5,10,15,20,25 (multiplied by 10000)				ON	ON			
Difficulty (Damage to Health)								
Normal 2						OFF	OFF	
Easy 1						OFF	ON	
Hard 3						ON	OFF	
Hardest 4						ON	ON	
Difficulty (Enemy appearance frequency)								
Normal								OFF
Hard								ON